

## GEOLOGY, GEOGRAPHY and CLIMATE

In the geologic past, horizontal beds of sedimentary rocks were deposited in what is now Garrett County, Maryland. These beds were buried, indurated, and folded to form a series of anticlinal and synclinal structures which parallel each other and run northeast and southwestward. Erosion and deep incision by stream action of these structures has produced the broad rolling upland of the Allegheny Plateau which covers the entire county. The Friendsville site (18 GA 23) lies within the lower Youghiogheny syncline or coal basin on west bank of the Youghiogheny River. The Youghiogheny Valley is 1500 feet above sea level while most of the rest of the county is above 2000 feet with an average elevation between 2300 and 2400 feet.

To the south and east Backbone and Meadow Mountains form part of the major divide which separates the stream drainage of Garrett County into the Potomac River and the Atlantic Ocean from the drainage of the Upper Ohio Valley which eventually empties into the Gulf of Mexico. The Youghiogheny River which flows northward, parallel to the western border of Garrett County, and eventually crosses into Pennsylvania where it joins with the Monongahela River is part of the Upper Ohio drainage system. The course of the Youghiogheny is relatively straight since it flows along the axis of a northward trending syncline.

South of Friendsville there is little room between the narrow valley walls for a flood-plain except at one or two curves where several terraces overlook the river. From about one mile south of Friendsville to Pennsylvania the stream flows through a broad valley with a wide flood-plain in one or both sides of the channel. This flood-plain is a low terrace of geologically recent origin.

There are traces of other terraces, particularly at the mouths of larger tributaries (Abbe 1902:47).

The climate of western Maryland is known as "continental." The prevailing westerlies bring most of the weather patterns from the west. While cold air masses in both winter and summer usually come from the northwest. Local inhabitants told us, and we saw for ourselves, rainstorms always approached the site from over the hills to the northwest. The high altitude of Garrett County has a direct effect upon the average annual temperature which is lower than the rest of the state.

In Oakland, the Garrett County seat, the average length of the growing season is 130 days which is the shortest in the state. This figure is for plants which are least resistant to frost. May 19th is the average date of the last killing frost. Killing frosts have occurred as late as June 24 and as early as August 21 in Oakland (Vokes 1968:25-27; Table 4). Comparative data is not available for Friendsville.